

***Development of the Department of Ophthalmology***

***Indiana University School of Medicine***

***1908-2006***

***This is a brief selection from Dr. Grayson's book as edited for the webpage. Complete copies can be obtained by contacting the Ophthalmology Department Library at (317) 274-1044.***

***Merrill Grayson, M.D.  
Distinguished Professor Emeritus  
Professor Emeritus of Ophthalmology***

***May 2007  
Indianapolis, Indiana***

The first chairman of the Department of Ophthalmology, Indiana University School of Medicine was Frank A. Morrison, M.D. He received his M.D. degree from the Indiana Medical School, which became the Indiana University School of Medicine in 1903. He engaged in the private practice of general medicine, and then, after a few years, went to New York and Philadelphia to study surgery of the eye, ear, nose, and throat (EENT). He returned to Indianapolis and engaged in the practice of EENT, but after awhile he limited his practice to the diseases of the eye.

During his long medical career, he held various positions on the medical school faculty. Beginning in 1878 to 1928, he held positions in the Medical College of Indiana and the Indiana University Medical School including Professor of Physiology and Histology, Professor of Pathology, Director of Physiological Laboratories, Professor of Diseases of the Eye, and Professor of Ophthalmology (Chairman).

He was a member of the staff of St. Vincent and Robert Long Hospitals and was the first director of the eye clinic at Riley Hospital. Dr. Morrison was a member of the American College of Surgeons, the American Academy of Ophthalmology and Otolaryngology, and Indianapolis and Indiana medical societies. He assumed the chair of the Department of Ophthalmology in 1908 and held it until his death in 1928. Drs. Albert E. Bulson, Thomas C. Hood, Harry C. Parker, and William F. Hughes were supporting staff. Dr. Morrison bequeathed his medical library and instruments to the Department of Ophthalmology. This was the small nucleus of the Frank A. Morrison Ophthalmological Library, which remains in the Department today.

After Dr. Morrison's death in 1928, there was no chairman from 1929 to 1934. In 1934, William F. Hughes, M.D., Professor of Ophthalmology, was appointed chairman on a part-time basis. Dr. Hughes engaged in the private practice of ophthalmology. His office was located in downtown Indianapolis, and he would visit the department several times a week and conduct the chairman's business.

Dr. Hughes was succeeded by Robert J. Masters, M.D., who held the position of chairman from 1943 to 1954 on a part-time basis. During this time, 22 residents were trained. Dr. Masters engaged in private practice in downtown Indianapolis. He visited the Department several times a week. Volunteer faculty helped in Departmental teaching.

It was not until 1954, when Fred M. Wilson, Sr., M.D. took the helm as chairman, that the department had its first full-time chairman. The Wilson period lasted from 1954 to 1979. Things began to change. He managed to expand the physical facilities. He introduced the compartmentalization of the Department into the ophthalmic subspecialties and appointed to these areas ambitious, young ophthalmologists who were well-trained. The residency program expanded. Their duties and academic responsibilities expanded. The Department started to become a nationally known entity and a sought after residency program. The chiefs of the various subspecialty services, through their diligent work and contributions to the literature, helped the Department grow in stature. These same individuals are the emeritus faculty of today.

There was a period of transition in 1980 when J. Terry Ernest, M.D., Ph.D. was appointed chairman. He left the post in 1981. Eugene M. Helveston, M.D. was appointed chairman and stayed three years. Merrill Grayson, M.D. was acting chairman on three separate occasions. During this difficult time, several of the full-time faculty left the Department to enter private practice. However, we managed to keep the residency program intact and active with the help of loyal, visiting faculty. We even survived an accreditation inspection after making some adjustments. The number of residency applications began to increase rapidly.

Though the Wilson period put the Department in the running as one of the finest clinical residencies in the country, research efforts were at a minimum. During this period, the faculty engaged in writing textbooks and clinical papers, contributing much to the world literature, and taught with vigor.

The Robert D. Yee, M.D. era began in 1987. The Yee period is one of the further expansion of the Department of Ophthalmology. The faculty has an outstanding record in the teaching of medical students and preparing residents in medical ophthalmology and in the most recent surgical techniques. The Department through its research efforts has contributed to the restoration of sight and the prevention of blindness in children and adults in the state of Indiana.

In addition to full-time and part-time faculty, there is a substantial group of ophthalmologists who volunteer their services to teaching residents the nuances of ophthalmic surgery. These individuals are devoted practitioners who serve the community in private practice with offices in the community-at-large.

The Department has expanded physically from a small, two-room clinic to a well-equipped, large clinic in a multi-specialty building to a veteran's hospital, a children's hospital, and a general city hospital. Each was supplied with state-of-the-art equipment. Explanations regarding each together with photographs are noted at the end. The ophthalmic photography section is manned by a full-time medical photographer. It is hoped that in 2020, faculty will review the progress of the Department from 2006, as was done here from 1908 to 2006.

The clinical specialties represent the services of Pediatric Ophthalmology, Neuro-Ophthalmology, Retina, Cornea and External Disease, Glaucoma, Orbit and Plastic Surgery, Comprehensive Ophthalmology, and Optics and Refraction. The management of the Department and the payroll of the Department, approximately \$5 million a year, are comparable to a small corporation. Generous financial support comes from various grants: federal, state, and private. The Lions Club of Indiana has been a source of funds for research, teaching modalities, and important surgical instruments (they donated the first Zeiss operating microscope to the Department in the 1960s), as well as other diagnostic instruments. They have also supported fellowships. More recently, the Letzter Chair in Ophthalmology, which is now occupied by Alon Harris, Ph.D., was established from private donations. Louis B. Cantor, M.D. occupies the J. C. and L. L. Kahn Chair in Glaucoma Research and Education, and Robert D. Yee, M.D. occupies the Merrill Grayson, M.D. Chair.

The Indiana University School of Optometry joined the IU Department of Ophthalmology at the IU Eye at Carmel facility. The optometry clinic is directed by Melanie Pickett, O.D. Assistant Professor of

Optometry, Sean Knaak, O.D., is the low vision specialist. The IU, Riley, and Methodist Hospitals joined forces to become Clarian Health PaChi-Wah (Rudy) Yung, M.D.

During the period from 1945 to 1987, the main thrust of the Indiana University Department of Ophthalmology was toward clinical medicine. The Department developed during that period a reputation as one of the finest clinical programs in the country. Residency applications grew dramatically, and the position became very competitive. In 1987, when Robert D. Yee, M.D. became chairman of the Department, an emphasis on research was added to the program. Activities and personnel devoted to basic and clinical research have increased greatly.

Research efforts in the Pediatric Ophthalmology and Adult Strabismus Service have concentrated on the use of endoscopic cyclophotocoagulation for refractory pediatric glaucoma. Current interest lies in using color Doppler imaging to measure ocular blood flow in retinopathy of prematurity, strabismus, and Sturge-Weber Syndrome.

The Vitreo-Retinal Service is concerned with a group of projects. These involve age-related macular degeneration, retinoschisis, endophthalmitis, and macular edema. They are also collaborating with other members of the Department to evaluate the role of a newly described growth factor in the eye and in neovascularization. Clinically, at the present time, the intravitreal medication gives hope that the angiogenesis and macular edema seen in age-related macular degeneration and diabetes may be markedly helped.

Further research projects involve: how genes and proteins impact the function of the retina, how ocular blood flow affects the progression of glaucoma, nutritional factors that affect the development of age-related macular degeneration and temporal arteritis, changes in circulation and how these changes critically impact the nerve fiber layer; and how brain disorders, such as Alzheimer's and Huntington's disease affect the eyes. In addition, Department of Ophthalmology specialists are exploring novel therapies, including the use of advanced pharmaceuticals and innovative surgical techniques.

## **Historical Photographs**

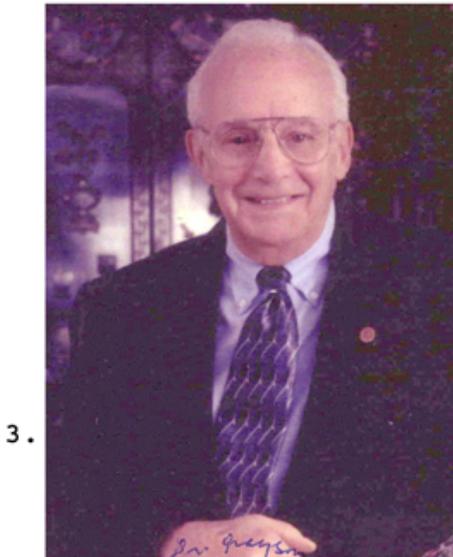
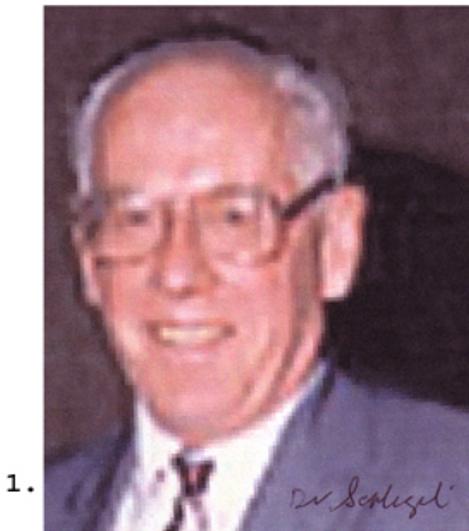
The photographs in this section are random ones taken at various stages in the development of the Department and include some important events involving staff personnel.



*Dr. Mortimer Mann, Chief of Ophthalmology  
(Died 1990)  
Chief at Rec Hospital before Dr. Yung.*



[Ed. note: corrected captions] 1. William F. Hughes, M.D., Chairman (1934-1943), Indiana University Department of Ophthalmology. 2. Mortimer Mann, M.D., Clinical Professor of Ophthalmology (Died 1990), chief at Wishard Hospital before Louis B. Cantor, M.D., who preceded Chi-Wah Yung, M.D. 3. Frank A. Morrison, M.D., Chairman (1908-1928). 4. Eugene M. Helveston, M.D., Chairman (1981-1984). 5. Fred M. Wilson, M.D., Chairman (1954-1979). 6. Robert J. Masters, M.D., Chairman (1943-1954).



1. Theodore F. Schlaegel, Jr., M.D., Emeritus Professor of Ophthalmology. 2. J. Terry Ernest, M.D., Ph.D., Chairman (1980-1981). 3. Merrill Grayson, M.D., Acting Chairman (1979-1980, 1981, 1984-1987). 4. Merrill Grayson, M.D. 5. Mortimer Mann, M.D., Clinical Professor of Ophthalmology.





1.



2.



3.



4.



5.



6.

Indiana University Department of Ophthalmology facilities: (1.) Roudebush Veterans Administration Hospital (2.) Indiana University Outpatient Center (3.) Wishard Hospital (4.) IU Eye at Carmel, a.k.a Spring Mill (5.) Rotary Building (6.) Regenstrief

1.



2.



4.



*Laser Unit*

6.



*Fundus Camera & Angiography*



3.



*Examining Unit*

5.

1. and 2. Reception Area, Indiana University Outpatient Center; 3. Waiting Room, IU Eye at Carmel; 4. Laser Unit, Roudebush VA; 5. Examining Unit, Roudebush VA; 6. Fundus Camera and Angiography, Roudebush VA.



1. Fred M. Wilson II, M.D.; Robert H. Michaels, M.D., Cornea Fellow 1976-1977; Merrill Grayson, M.D.  
 2. Fundus 3. Surgery set-up then (1959) and now (2006); pre-Zeiss operating microscope--use of Zeiss Loupes, 1954. 4. through 7. Wishard Hospital Operating Room set-up.

1.



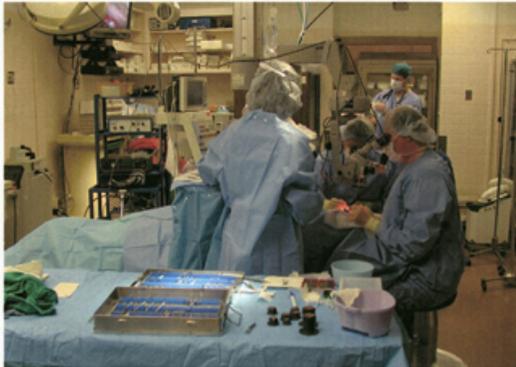
2.

*Fundus camera*



*Pre-Zeiss Operating microscope -  
 Use of Zeiss Loupes  
 1954*

3.



4.



5.

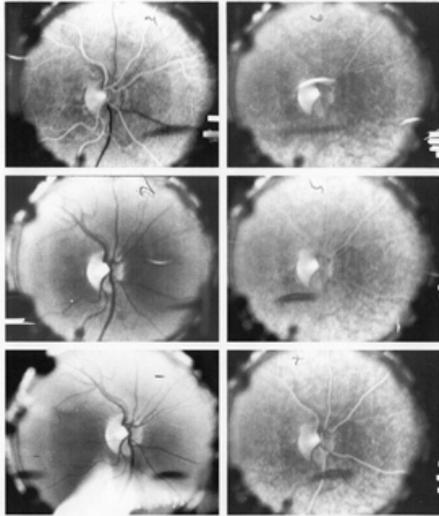


6.



7.

*Wishard OR setup*



1.



2.

*"Jack" Van der Vliet Technician for Eye Bank*



3.

*Dr. J. Fritch Resident 1963  
Preparing Eye Bank Material  
Dr. Grayson*



4.

*Dr. Grayson - Eye Bank 1963*



5.



6.

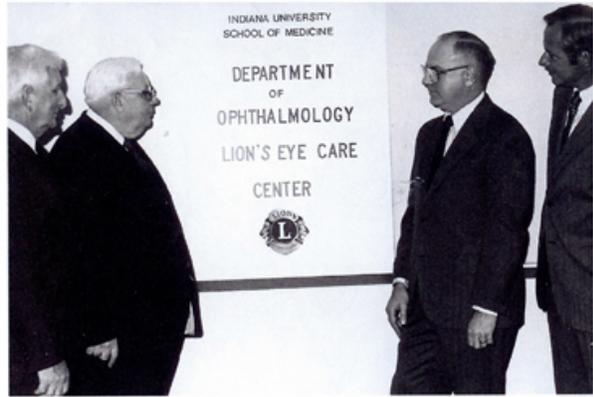
*Dr. Grayson Eye Bank Director Dr. Kenney*

1. First human retinal fluorescein angiogram, performed at the Indiana University Medical Center in 1960. 2. Jacobus "Jack" van der Vliet, Indiana Lions Eye Bank technician. 3. John M. Fritch, M.D. (Resident 1962-1965) and Merrill Grayson, M.D. prepare eye bank material. 4. Merrill Grayson, M.D. performs eye bank duties in 1963. 5. Unspecified. 6. Merrill Grayson, M.D. and David B. Kenney, M.D. (Resident 1963-1966).

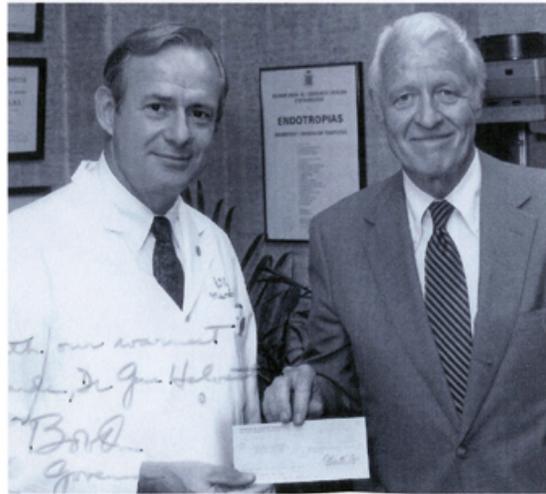


1.

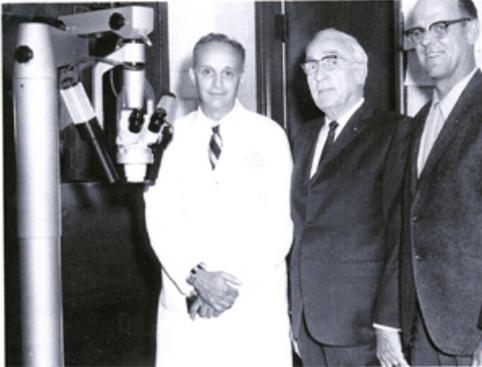
*Dr. Fred Wilson Resident '69  
Dr. Merrill Grayson  
Mr. Cipella Technician  
Cryopreservation of Corneal Material  
for Eye Bank.*



2.

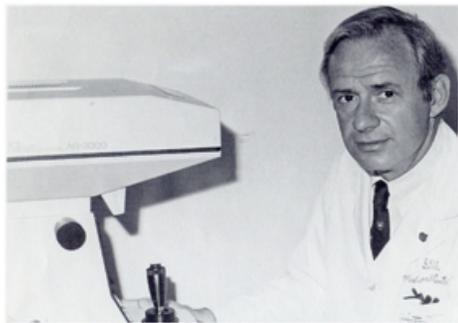


4.



3.

*Dr. Merrill Grayson Receiving 1st Zeiss Microscope (Surgical)  
Gift from Members of Indiana Lions Eye Bank.  
1969*



5.

1. Fred M. Wilson II, M.D. (Resident 1968-1971); Merrill Grayson, M.D.; and Mr. Cipella, technician, perform cryopreservation of corneal material for the Lions Eye Bank. 2. Photo taken at the dedication of the IU Department of Ophthalmology, Lions Eye Care Center. (Left to right) two Lions officials; Steven C. Beering, M.D., dean of the IU School of Medicine (1974 to 1983); and Eugene M. Helveston, M.D., chairman of the IU Department of Ophthalmology (1981 to 1984). 3. Merrill Grayson, M.D. receives first Zeiss microscope (surgical) as a gift from members of the Indiana Lions Eye Bank in 1969. 4. Robert D. Orr, governor of the State of Indiana, presents a check for \$40,000 to Eugene M. Helveston, M.D., director of the Pediatric Ophthalmology service. This fund was used to help patients receive contact lenses in the treatment of congenital cataract. 5. Dr. Helveston checks out a new auto-refractor purchased for Pediatric Ophthalmology.



1.



2.



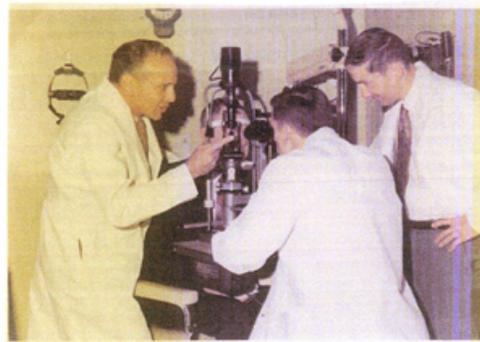
3.



4.



5.



6.

"In 1989, Dr. Yee influenced the successful renovation of the Rotary Building and construction of four major basic science laboratories in four facilities on the IU Medical Center campus. During the 5.5 years of his tenure [1987--], Dr. Yee has initiated the restoration of departmental resources to multi-million dollar proportions. He and his faculty have attracted considerable intra- and extra-mural grants." 1. and 2. Merrill Grayson, M.D. and Robert D. Yee, M.D. plan the renovation of the Rotary Building. 3. Fred M. Wilson II, M.D. and Dr. Grayson preparing course for American Academy of Ophthalmology "Corneal Manifestations of Systemic Disease." 4. Dr. Yee and Dr. Grayson 5. Dr. Wilson; Robert H. Michaels, M.D. (Resident 1973-1976, Fellow 1976-1977); and Dr. Grayson. 6. Dr. Grayson; Dr. Wilson; and Stephen E. Kroczek, M.D. (Resident 1967-1970).

*Dr. Daniel Neely's Experience in Vietnam -  
Pediatric Ophthalmology.*



1.

2.

*Premature Infants -*

*Retinopathy of Prematurity.*



3.



*Dr. Daniel Neely in Vietnam - Copyright Outreach Program*

4.

1. and 2. Pediatric ophthalmologist Daniel E. Neely, M.D.'s experience in Vietnam. Premature infants with retinopathy of prematurity. 3. and 4. Dr. Neely in Vietnam with the ORBIS outreach program.



1.



2.

2. David A. Plager, M.D.  
ORBIS trip to Cuba. Eye  
surgery by the team  
surgeons.

*Dr. Plager - Orbis trip - to Cuba -  
"Surgery (eye) by the team surgeons"*



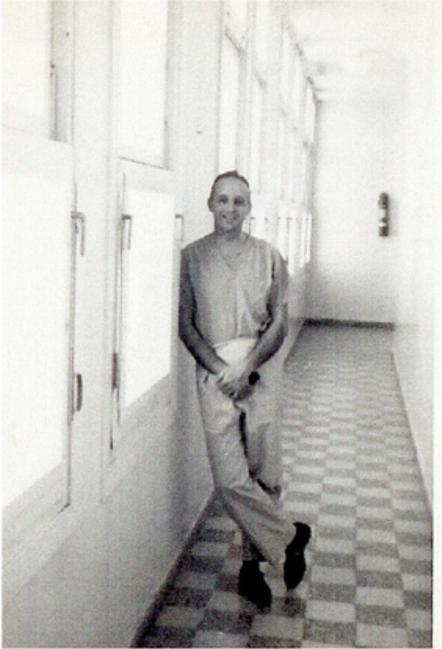
3.

*Dr. D. Plager -  
on "outreach program  
- Orbis"*

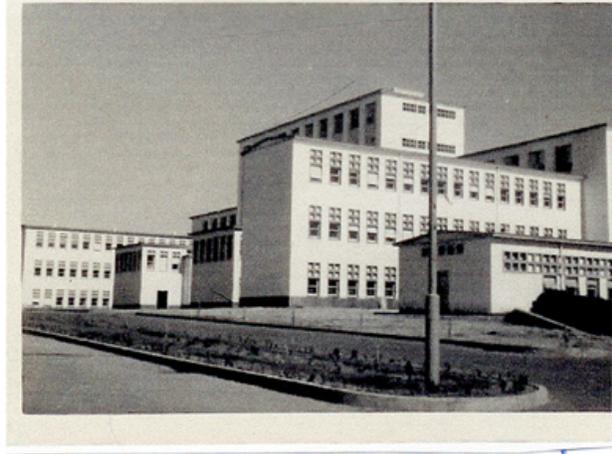
3. Dr. Plager on ORBIS  
outreach program.

2/8/2006

1.



Dr. Grayson in Algeria '68



2.

Beni Messous Hospital - Algeria - '68

3.



Dr. Grayson with "operating team" in Algeria '68



4.

Dr. Grayson in Algeria - Visiting the "Trachoma Institute"

1. Merrill Grayson, M.D. in Algeria, 1968. 2. Beni-Messous Hospital in Algeria, 1968. 3. Dr. Grayson with "operating team" in Algeria, 1968. 4. Dr. Grayson in Algeria visiting the "Trachoma Institute." 5. Dr. Grayson on International Eye Foundation mission meeting with President Habib Bourguiba of Tunisia, 1968.

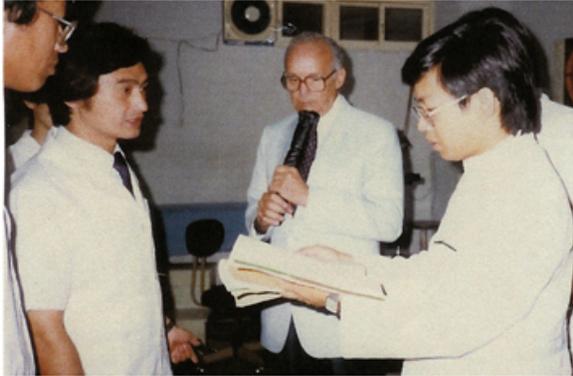


5.

Dr. Grayson - on International Eye Foundation mission meeting with President of Tunisia - President Bourguiba 1968

Dr. Merrill Grayson, Visiting Professor, Taiwan, R.O.C.  
1986 - Teaching  
External Disease session.

1.



Direct Clinical Teaching



2.

Dr. Grayson with Dr. Chen - Kaohsiung University, Taiwan, R.O.C. Medical School.

Kaohsiung Experience.

1. Merrill Grayson, M.D.'s experience as visiting professor, Taiwan, Republic of China, 1986. Teaching External Disease session. Direct clinical teaching. 2. Dr. Grayson with Dr. Chen, Kaohsiung University Medical School, Taiwan, Republic of China. 3. Dr. Grayson instructing in surgery. 4. Post-op discussion. 5. Pathology session and clinical discussion.



3.



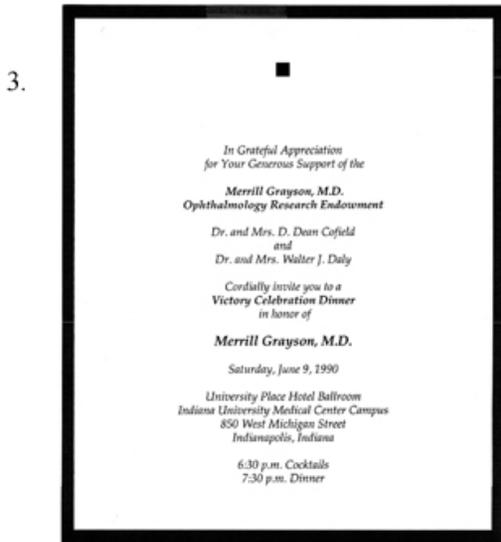
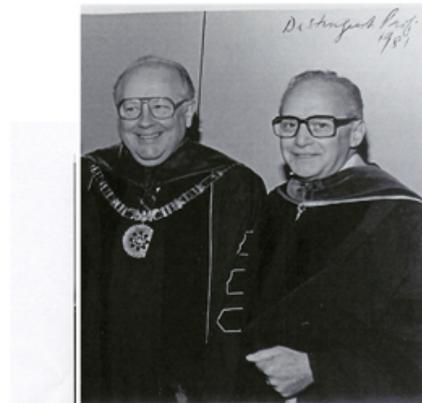
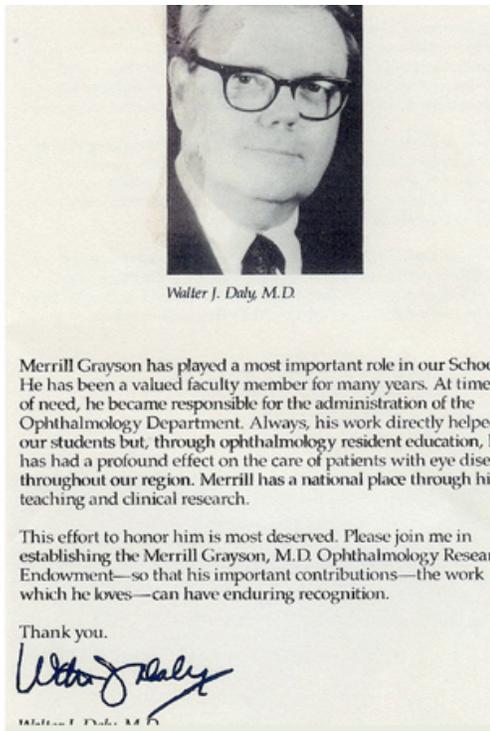
4.

Post-op Discussion



5.

Pathology Session + Clinical Discussion



2. "Celebrate Our Heroes" dinner (1998) in honor of Merrill Grayson, M.D. which was attended by four deans--one present at the time and three previous deans. (Left to right) Robert W. Holden, M.D. [1995 to 2000]; Glenn W. Irwin, Jr., M.D. [1965 to 1973]; Dr. Grayson; Steven C. Beering, M.D. [1974 to 1983]; and Walter J. Daly, M.D. [1983 to 1995]. 4. Dr. Grayson receiving academic title of "Distinguished Professor" at ceremonies in Bloomington, Indiana in 1981. (Left to right) John W. Ryan, Ph.D., president of Indiana University, and Dr. Grayson. 5. (Left to right) Robert D. Yee, M.D., chairman of the Indiana University Department of Ophthalmology; Dr. Grayson; and D. Dean Cofield, M.D. Dr. Cofield, was chairman of the committee for the "Merrill Grayson Ophthalmology Research Endowment." Dr. Yee receiving check of \$600,000 which was donated to the department from Dr. Grayson's friends among the previous ophthalmology residents--1990."